

Original Article

Prevalence and determinants of chronic illness and quality of life among rural residents of Pondicherry - A descriptive cross-sectional study

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ABSTRACT

Objectives: The lifestyle diseases which are becoming chronic noncommunicable disorders contribute to about 53% of death rate in India affecting the DALY to a greater extent. These lifestyle illnesses are proving to be a great challenge in public health as they are necessitating for the advanced modalities of screening techniques that have to be in place for early detection. The objectives of the study were to assess the prevalence and determinants of chronic illness and quality of life among rural residents of Pondicherry.

Materials and Methods: The study is a descriptive observational study using a validated structured questionnaire among rural residents who have crossed the adolescent period.

Results: The subjects included people aged above 18 years. It is observed that about 45.5% of the study population are between 38 and 58 years and about 24% of the study population were skilled, 10.6% are illiterate and 59.8% of the study population are not regular visitors to any health center, about 72% of them attend a health facility once in 3- 5-7 months/year. It is observed that about 24.6% have had the disease for 6-10 years. Among them, 25.9% are diabetic, 7.3% are hypertensive, 8% have both, 3.7% had asthma, 0.3% are CAD, and 0.7% had a stroke. According to physical (median = 26), psychological (median = 21), social (median = 11), and environmental (median = 29) domains, quality of life was moderately good.

Conclusion: This study revealed that all the domains are affected in the quality of life even in a rural area where urbanisation and industrialisation is not established.

Keywords: Non-communicable diseases, Quality of life, Rural

INTRODUCTION

The lifestyle diseases which are becoming chronic noncommunicable disorders contribute to about 53% of death rate in India affecting the DALY to a greater extent. These lifestyle illnesses are proving to be a great challenge in public health as they are necessitating and warranting the advanced modalities of screening techniques that has to be in place for early detection. Lifestyle disorders require the modification and adjustment of various risk factors that are involved in their causation. Special mention and attention has to be given to the organ systems that are easily affected by these lifestyle disorders such as insulin resistance, increased blood pressure (BP), uncontrolled cell proliferation, and weakness and palsy affecting the human body. The various symptoms and signs elicited by these disorders can be diagnosed by early detection and screening with an emphasis on disability limitation and rehabilitation.^[1] The problem statement pertaining to this

disorder has to be prioritized by the existing health programs and various conceptual frameworks has to be worked out to improve the healthcare system. The nutraceuticals and their significance have to be clearly laid out to make the public receptive and accept the newer way of life by inculcating the age-old traditions in preparing and processing the food to preserve its nutritive values.^[2] The artificially prepared food processing and food additives has to be contained by enforcement of various public health laws.^[3] Implementation and translational approaches can bring out newer techniques in lifestyle management.^[4] These disorders invariably affect all age groups from children, adolescents, middle age, and the elderly population.^[5] Various contributing and modifiable risk factors like should be stressed to the population while conducting such research in a community setup.^[6] The metabolic syndrome where the endocrine system, reproductive system, and peripheral vascular system are affected has to be

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screened at an early stage to prevent chronic and long-term complications.^[6] So an initiative has been taken to assess the prevalence and determinants of chronic illness and quality of life among rural residents of Pondicherry.

MATERIALS AND METHODS

The study is a community-based cross-sectional study with a universal sampling of all the individuals above 18 years of age and those who are permanent residents of the field practice area of the Rural Health Training Centre of the Department of Community Medicine in Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry. The participants were interviewed using a pretested and prevalidated questionnaire comprising of the socio-demographic details, and knowledge on non-communicable disease (NCD) which comprised questions pertaining to the clinical course, hospital visits, frequency of visits, and money spent in the healthcare. It also included questions regarding the quality of life in the study population which is composed of the physical, psychological, social, family and environmental domains. Evaluation of these domains can reveal the overall impact of illness on patients' quality of life. In the above-mentioned field practice area all the eligible candidates, as per the inclusion criteria were selected starting randomly from a street and house to house survey was done by using the study questionnaire. Candidates who were available at their homes at the time of the visit were

interviewed. Those who were unavailable during the visit were interviewed on the second visit. After informing the study participants about the research and getting prior consent using the participant's information sheet and informed consent form, they were interviewed. The data obtained from the questionnaire for the quantitative study were entered in Microsoft excel and analyzed using SPSS software version 21. The study was conducted between October 2021 and November 2021 and the data were collected over 2 months.

RESULTS

From the study, it was observed that the study subjects were people aged above 18 years and about 45.5% of the study population are between 38 and 58 years and about 24% of the study population were skilled, 10.6% are illiterates, and 59.8% of the study population were not regular visitors to any health center. About 72% of them attended a health facility once in 3- 5-7 months/year.

It is observed that about 24.6% have had the disease for 6-10 years. Among them, 25.9% are diabetic, 7.3% are hypertensive, 8% have both, 3.7% had asthma, 0.3% are CAD, and 0.7% had a stroke. According to physical (median = 26), psychological (median = 21), social (median = 11), and environmental (median = 29) domains pertaining to the quality of life, the median score was moderately good [Tables 1 and 2].

DISCUSSION

In a study by Goodman *et al.*^[2] on the burden of diabetes and metabolic syndrome, out of 107 participants, 26.2% had diabetes, whereas, in our study conducted in randomly selected residents, the prevalence rate was 25.9% which was in concordance. In a study by Naseem *et al.*^[8] on the burden of NCDs and their contributors, out of 1210 subjects, about 38.7% had high BP, and 14.6% were diabetic, whereas in our study the prevalence rate of hypertension was 7.3% and that of diabetes was 25.9%. There is a high BP prevalence among our study population which has to be brought out that, even in a rural area there are chances of an increase in chronic illness if adequate awareness and interventions are not available. Moreover,

Table 1: Prevalence of non-communicable diseases among study population.

Chronic illness	Frequency (n)	Percentage
Diabetes	78	25.9
Hypertension	22	7.3
Diabetes and hypertension	24	8
Asthma	11	3.7
Stroke	2	0.7
Coronary artery disease	1	0.3
Cancer	1	0.3
Thyroid	12	4

Table 2: Quality of life among the study population.

Quality of life	Maximum score	Median	IQR	Minimum score	Maximum score
1	5	4	3-4	1	5
2	5	4	3-4	2	5
Physical	35	26	16-34	14	35
Psychological	30	21	13-28	10	30
Social	15	11	5-15	3	15
Environmental	40	29	18-39	16	40
Total	130	95	58-124	44	130

It is observed that the majority of the subjects felt their quality of life was good. According to physical (median=26), psychological (median=21), social (median=11), and environmental (median=29) domains observed in our study, quality of life was moderately good, IQR: Inter quartile range

the residents must be educated about health and its determinants. In a study by Kumar *et al.*^[9] on lack of exercise was a determinant in derailing the quality of life. Out of 365 individuals with NCDs, 72% were physically inactive, whereas in our study physical inactivity moderately influenced the quality of life of people with NCDs. In a study by Naik *et al.*^[10] on health-related quality of life of hypertensive individuals, about 101 subjects are involved, and their quality of life was influenced by hypertension, whereas in our study the quality of life was moderately influenced by chronic illness. In a study by Chauhan *et al.*^[7] showed the preponderance of abdominal obesity in 57% of the people in a coastal area. Thus from conducting this research in our field practice, the study brought out the significance of visiting health facilities regularly for continuous monitoring and surveillance of the disease condition. Chronic illness has a greater impact on the quality of life of individuals. Even in a rural setup the prevalence of chronic illness is high and the quality of life is compromised to a greater extent. This issue will be addressed in future studies with a focused group discussion or in-depth interviews.

CONCLUSION

This study revealed that all the domains are affected in the quality of life even in a rural area where urbanisation and industrialisation is not established. Even in a rural area population is suffering from the double burden of communicable and noncommunicable diseases, which has to be dealt seriously. Various qualitative studies will be useful to reveal the hidden truths in this scenario.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

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